AMENDMENTS TO THE CLAIMS

Please add or amend the claims to read as follows, and cancel without prejudice or disclaimer to resubmission in a divisional or continuation application claims indicated as cancelled:

1. (Currently amended) A decoding method comprising:

decoding information received at a network device by applying a first algorithm iteratively until a stopping criterion is reached; and

further decoding the information using a second algorithm different than the first algorithm, wherein the information comprises a low density parity check (LDPC) codeword, and wherein further decoding using a second algorithm comprises:

identifying one or more check nodes having lowest metrics after the stopping criterion is reached,

identifying at least one of a bit node or edge having lowest metrics and associated with each identified check node, and

assessing parity relationships for the identified at least one bit node or edge.

2. (Canceled)

3. (Canceled)

4. (Original) The decoding method of claim 1 wherein the network device includes a radio frequency (RF) transceiver.

5. (Original) The decoding method of claim 4 wherein the RF transceiver comprises a wireless local area network (WLAN) transceiver.

6. (Original) The decoding method of claim 1 wherein the network device comprises an Ethernet device.

7. (Original) The decoding method of claim 1 wherein the stopping criterion comprises a number of decoding iterations.

8. (Original) The decoding method of claim 1 wherein the stopping criterion comprises an elapsed time.

9. (Canceled)

10. (Original) The decoding method of claim [[9]] 1 further comprising:

flipping one or more bits associated with an identified check node.

11. (Currently amended) A device comprising: a processor configured to decode received information using a first iterative decoding algorithm to converge a probability regarding bit logic states and after a last iteration, using a second decoding algorithm to ~~potentially~~ determine whether to flip a logic state of one or more bits, wherein said second decoding algorithm comprises:

identifying one or more check nodes having lowest metrics after said last iteration,

identifying at least one of a bit node or edge having lowest metrics and associated with each identified check node, and

assessing parity relationships for the identified at least one bit node or edge.

12. (Original) The device of claim 11 wherein the received information comprises one or more low density parity check (LDPC) codewords.

13. (Original) The device of claim 11 comprising a user station.

14. (Currently amended) ~~The device of claim 11 comprising~~ A device comprising: a processor configured to decode received information using a first iterative decoding algorithm to converge a probability regarding bit logic states and after a last iteration, using a second decoding algorithm to potentially flip a logic state of one or more bits, wherein said device comprises a network access station.

15. (Currently amended) ~~The device of claim 11 comprising~~ A device comprising: a processor configured to decode received information using a first iterative decoding algorithm to converge a probability regarding bit logic states and after a last iteration, using a

second decoding algorithm to potentially flip a logic state of one or more bits, wherein said device comprises a network interface card (NIC).

16. (Currently amended) ~~The device of claim 11 comprising~~ A device comprising: a processor configured to decode received information using a first iterative decoding algorithm to converge a probability regarding bit logic states and after a last iteration, using a second decoding algorithm to potentially flip a logic state of one or more bits, wherein said device comprises an orthogonal frequency division multiplexing (OFDM) enabled transceiver.

17. (Original) The device of claim 11 comprising:

a receiver;

a digital processing portion coupled to the receiver; and

an antenna coupled to the receiver.

18. (Currently amended) A communication system comprising:

a radio frequency (RF) transceiver; and

a decoder coupled to the RF transceiver and adapted to decode received information using a first iterative decoding process and to further decode the received information using a second decoding process different than the first iterative decoding process, wherein said second decoding process comprises:

identifying one or more check nodes having lowest metrics after a stopping criterion is reached,

identifying at least one of a bit node or edge having lowest metrics and associated with each identified check node, and

assessing parity relationships for the identified at least one bit node or edge.

19. (Original) The communication system of claim 18 comprising a wireless local area network (WLAN) access point (AP).

20. (Original) The communication system of claim 18 further comprising one or more antennas coupled to the RF transceiver.

21. (Original) The communication system of claim 18 comprising a cellular telephone.

22. (Original) The communication system of claim 18 comprising a personal computer.

23. (Original) The communication system of claim 18 comprising a base station.

24. (Canceled)

25. (Currently amended) ~~The method of claim 24 further~~ A method for decoding information comprising:

receiving coded information;

iteratively decoding the received information;

after a last iteration, flipping one or more bits of the decoded information having a low probability of a certain logic state; and

identifying one or more check nodes having lowest metrics.

26. (Original) The method of claim 25 further comprising:

assessing parity relationships of one or more bit nodes or edges associated with an identified check node.

27. (Original) The method of claim 26 wherein flipping one or more bits comprises changing a logic value of one or more bits associated with the assessed bit nodes or edges.